

polynucleotide is selected from the group consisting of:

- (a) a polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:20; and
- (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:19.

78. (New) An isolated polynucleotide encoding a G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

- (a) a polynucleotide consisting essentially of a nucleotide sequence encoding the polypeptide of SEQ ID NO:20; and
- (b) a polynucleotide consisting essentially of the nucleotide sequence of SEQ ID NO:19.

79. (New) A vector comprising the polynucleotide of claim 77 or claim 78.

B1 80. (New) The vector of claim 79, wherein said vector is an expression vector, and said polynucleotide is operably linked to a promoter.

81. (New) A recombinant host cell comprising the vector of claim 79.

82. (New) A process for making a recombinant host cell comprising the steps of:

- (a) transfecting the expression vector of claim 80 into a suitable host cell; and
- (b) culturing the host cell under conditions which allow expression of a G protein-coupled receptor from the expression vector.

83. (New) A membrane of the recombinant host cell of claim 81 comprising said expressed G protein-coupled receptor.

84. (New) An isolated polynucleotide encoding a non-endogenous, constitutively activated G

protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

- (a) a polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and
- (b) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine.

85. (New) An isolated polynucleotide encoding a non-endogenous, constitutively activated G protein-coupled receptor, wherein said polynucleotide is selected from the group consisting of:

- B1
- (a) a polynucleotide consisting essentially of a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and
 - (b) a polynucleotide consisting essentially of the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine.

86. (New) The polynucleotide of claim 84 or claim 85 wherein the codon corresponding to glycine at amino acid position 285 or the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to lysine.

87. (New) A vector comprising the polynucleotide of any one of claims 84, 85 or 86.

88. (New) The vector of claim 87, wherein said vector is an expression vector, and said polynucleotide is operably linked to a promoter.
89. (New) A recombinant host cell comprising the vector of claim 87.
90. (New) A process for making a recombinant host cell comprising the steps of:
- (a) transfecting the expression vector of claim 88 into a suitable host cell; and
 - (b) culturing the host cell under conditions which allow expression of a G protein-coupled receptor from the expression vector.
91. (New) A membrane of the recombinant host cell of claim 89 comprising said expressed G protein-coupled receptor.
92. (New) An isolated polynucleotide encoding a G protein fusion construct of a G protein-coupled receptor, wherein said polynucleotide comprises the nucleotide sequence of SEQ ID NO:19.
93. (New) An isolated polynucleotide encoding a G protein fusion construct of a G protein-coupled receptor, wherein said polynucleotide comprises a nucleotide sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding the polypeptide of SEQ ID NO:20 wherein the codon corresponding to glycine at amino acid position 285 has been substituted with a codon corresponding to an amino acid other than glycine; and
 - (b) the nucleotide sequence of SEQ ID NO:19 wherein the codon at nucleotide positions 853-855 corresponding to glycine has been substituted with a codon corresponding to an amino acid other than glycine
94. (New) The isolated polynucleotide of claim 93 wherein the codon corresponding to